We claim:

1. A polymer precursor compound represented by 1:

Poly—L—R—Y 
$$1$$

wherein:

Poly represents a polymer;

L is selected from:

R represents aryl or heteroaryl;

Y represents hydrogen, alkyl, alkoxyl, carbonyl, formyl, amido, amino, alkylamino, dialkylamino, carboxamido, acylamino, (heterocyclcyl)acylamino, alkylcarboxyamido, C(O)-R<sub>4</sub> or C(O)NH-R<sub>4</sub>;

R<sub>3</sub> represents independently for each occurrence alkyl, alkenyl or alkynyl;

 $R_4$  represents hydrogen, alkyl, alkenyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, aralkyl, heteroaralkyl, peptide, protein, amino acid, antibody, nucleotide, nucleoside, or -(CH<sub>2</sub>)<sub>m</sub>-R<sub>80</sub>;

R<sub>80</sub> represents independently for each occurrence aryl, cycloalkyl, cycloalkenyl, heterocyclyl, or polycyclyl; and

m is an integer in the range 0 to 8 inclusive.

- 2. The polymer precursor compound of claim 1, wherein L is R<sub>3</sub>-Sn-R<sub>3</sub>.
- 3. The polymer precursor compound of claim 2, wherein Y is alkoxyl, formyl, amido, dialkylamino, carboxamido, alkoxyl, alkylcarboxyamido, C(O)-R<sub>4</sub> or C(O)NH-R<sub>4</sub>
- 4. The polymer precursor compound of claim 3, wherein Y is C(O)-R<sub>4</sub> or C(O)NH-R<sub>4</sub>

- 5. The polymer precursor compound of claim 1 wherein R<sub>4</sub> is a peptide, protein, amino acid, antibody, nucleotide or nucleoside.
- 6. The polymer precursor compound of claim 4 wherein  $R_4$  is a peptide, protein, amino acid, antibody, nucleotide or nucleoside.
- 7. The polymer precursor compound of claim 6 wherein R<sub>4</sub> is a peptide or protein.
- 8. The polymer precursor compound of claim 6 wherein R<sub>4</sub> is a nucleotide or a nucleoside.
- 9. The polymer precursor compound of claim 2 wherein R<sub>3</sub> is alkyl.
- 10. The polymer precursor compound of claim 2 wherein R<sub>3</sub> is butyl.
- 11. The polymer precursor compound of claim 11 wherein said polymer is functionalized by the moiety L on substantially all monomeric units.
- 12. The polymer precursor compound of claim 1 wherein said polymer is insoluble.
- 13. The polymer precursor compound of claim 12 wherein said polymer is polystyrene, polyurethrane, poly(ethylene-co-vinyl acetate), polyethylene, polystyrene /rubber, or poly(ethylene-co-propylene).
- 14. The polymer precursor compound of claim 13 wherein said polymer is polystyrene.

## 15. The compounds:

Poly-(4S, 5S)-2-(4-{dibutyl[2-(3-vinylphenyl)ethyl]stannyl}phenyl)-3, 4-dimethyl-5-phenyl-1, 3-oxazolidine)-co-divinylbenzene; Poly-(4S, 5S)-2-(4-{dibutyl[2-(4-vinylphenyl)ethyl]stannyl}phenyl)-3, 4-dimethyl-5-phenyl-1, 3-oxazolidine)-co-divinylbenzene; Poly-(3-{dibutyl[2-(3-vinylphenyl)ethyl]stannyl}benzaldehyde)-co-divinylbenzene; Poly-(3-

{dibutyl[2-(4-vinylphenyl)ethyl]stannyl}benzaldehyde)-co-divinylbenzene; Poly-(4-{dibutyl[2-(3-vinylphenyl)ethyl]stannyl}benzaldehyde)-co-divinylbenzene; Poly-(4-{dibutyl[2-(4vinylphenyl)ethyl]stannyl}benzaldehyde)-co-divinylbenzene; Poly-(3-{dibutyl[2-(3-vinylphenyl)ethyl]stannyl}benzoic acid)-co-divinylbenzene; Poly-(3-{dibutyl[2-(4-vinylphenyl)ethyl]stannyl}benzoic acid)-co-divinylbenzene: Poly-(4-{dibutyl[2-(3-vinylphenyl)ethyl]stannyl}benzoic acid)-co-divinylbenzene; Poly-(4-{dibutyl[2-(4-vinylphenyl)ethyl]stannyl}benzoic acid)-co-divinylbenzene; Poly-(4-{dibutyl[2-(3-vinylphenyl)ethyl]stannyl}hippuric acid)-co-divinylbenzene. (4-{dibutyl[2-(4-vinylphenyl)ethyl]stannyl}hippuric acid)-co-divinylbenzene; Poly-(4-{dibutyl[2-(3-vinylphenyl)ethyl]stannyl} N, N-diethylethylenediamino benzamidyl)-codivinylbenzene; Poly-(4-{dibutyl[2-(4-vinylphenyl)ethyl]stannyl} N, N-diethylethylenediamino benzamidyl)-co-divinylbenzene; Poly-(4-{dibutyl[2-(3-vinylphenyl)ethyl]stannyl} Nsuccinimidyl ester)-co-divinylbenzene; Poly-(4-{dibutyl[2-(4-vinylphenyl)ethyl]stannyl} Nsuccinimidyl ester)-co-divinylbenzene; Poly-(4S, 5S)-2-(5-{dibutyl[2-(4vinylphenyl)ethyl]stannyl}-2, 3-dihydrobenzofuran-7-yl)-3, 4-dimethyl-5-phenyl-1, 3oxazolidine-co-divinylbenzene; Poly-5-{dibutyl[2-(4-vinylphenyl)ethyl]stannyl}-2, 3-dihydrobenzofuran-7-carbaldehyde-codivinylbenzene; and Poly-5-{Dibutyl[2-(4-vinylphenyl)ethyl]stannyl}-2, 3-dihydrobenzofuran-7carboxylic acid-co-divinylbenzene.

- 16. A method for preparing a radiolabeled compound, the method comprising: reacting a compound of any of claims 1-15 with an oxidant, a radiolabeled compound and optionally a buffer.
- 17. A method of claim 16, further comprising a purification of the radiolabeled compound.
- 18. A kit containing a radiolabeling system, comprising: a polymer precursor compound and instructions for using said polymer precursor compound, wherein said polymer precursor compound comprises the polymer precursor compound of claim 1.
- 19. The kit of claim 18 that further includes a filter or a filtration device.

- 20. The kit of claim 19 that further includes a chelating agent and optionally an auxiliary molecule.
- 21. A method of synthesizing radiolabeled benzamides on a solid support which comprises:
  - a) selecting a solid support comprising at least one compound attached to said solid support which compound comprises a benzoic acid moiety;
  - b) reacting said moiety of said compound attached to said solid support with at least one amine to afford a benzamide bound to a solid support; and
  - c) reacting said benzamide bound to said solid support with a radiolabeled compound or isotope, and an oxidant to yield said radiolabeled benzamides.
- 22. The method of claim 21 wherein the radioisotope is selected from the group consisting of  $^{18}$ F,  $^{11}$ C,  $^{76}$ Br,  $^{123}$ I,  $^{131}$ I and  $^{125}$ I.